CLAIMS:

1. A method of surveying a buried pipeline, which pipeline comprises a tubular member with a protective wrapping, comprising the step of applying a signal to the pipeline from a first location, which first location is remote from the pipeline, and measuring the signal from a second location and a third location, which second and third locations are remote from the pipeline, the second location being spaced from the third location along the pipeline and using the signals received at the second location and third location to provide an indication of deterioration of the tubular member and / or wrapping.

2. A method according to claim 1 wherein the step of applying a signal to the pipeline from a first location comprises the step of inducing an electric current in the pipeline by electromagnetic induction.

3. A method according to claim 1 wherein the difference between the strength of signal measured at the second location and the third location is representative of attenuation of the signal along the tubular member and / or wrapping between the second and third locations.

4. A method according to claim 3 further comprising the step of comparing the attenuation of the signal along the tubular member and / or wrapping with a predetermined expected attenuation in order to provide an indication of deterioration of the tubular member and / or wrapping.

5. A method according to any preceding claim wherein the frequency of the

signal applied to the pipeline is between 5 kHz and 35 kHz.

6. A method according to any preceding claim wherein the frequency of the signal applied to the pipeline is between 10 kHz and 32 kHz.

7. A method according to any preceding claim wherein the distance between each spaced location is between 10 meters and 100 meters.

8. A method of surveying a buried pipeline, which pipeline comprises a tubular member with a protective wrapping, comprising the step of selecting a plurality of spaced locations above and along the length of the pipeline, and sequentially from each spaced location applying a signal to the pipeline and measuring the signal at each of the other spaced locations.

9. A method according to claim 8 wherein the difference in measured signal strength between a pair of adjacent spaced locations along a length of the pipeline in the direction of signal transmission is a measure of the attenuation of the signal over that length of pipeline and the measurement of the signals applied to the pipeline from the plurality of spaced locations generates a plurality of measured signal strengths, the method comprising the step of calculating a plurality of attenuations for each of the plurality of lengths of pipeline located between respective pairs of spaced locations and the method further comprising the step of averaging the calculated attenuations for each length of pipeline.

10. A method according to claim 9 wherein the attenuation is calculated in units which are independent of the applied signal strength.

11. A method according to claim 9 or claim 10 wherein each measured attenuation across each length of pipeline is expressed as a ratio of a predetermined expected attenuation to provide a plurality of attenuation ratios and the attenuation ratios associated with each length of pipeline are multiplied together to produce an attenuation product for each length of pipeline, the method further comprising the step of comparing the attenuation products to provide an indication of deterioration in each length of the pipeline.

12. A method according to any one of claims 8 to 11 wherein the distance between each pair of adjacent spaced locations is between 10 and 100 meters.

13. A method according to any one of claims 8 to 12 wherein the frequency of the signal applied to the pipeline is between 5 kHz and 35 kHz.

14. A method according to any one of claims 8 to 13 wheren the frequency of the signal applied to the pipeline is between 10 kHz and 32 kHz.

15. A pipeline survey apparatus for use in a method according to any one of claims 1 to 14, the apparatus comprising a plurality of sensor units, each sensor unit being spaceable from each other sensor unit above and along a length of the pipeline at a respective one of a plurality of spaced locations, at least one sensor unit comprising a non-contact coupling means for applying a signal to a pipeline and at least two sensor units each comprising a receiver for measuring signals emitted by a pipeline.

16. An apparatus according to claim 15 wherein each sensor unit comprises non-

contact coupling means for applying a signal to a pipeline and a receiver for measuring signals emitted by a pipeline.

17. An apparatus according to claim 15 or claim 16 comprising a control unit, which control unit is arranged to receive data from each sensor unit and to perform calculations as referred to in any one of claims 8 to 10 in order to measure deterioration in a pipeline.

18. An apparatus according to claim 17 wherein a sensor unit is a master sensor unit, the master sensor unit comprising the control unit and further comprising a long range communication device.

19. An apparatus according to claim 18 wherein the long range communication device is a GSM radio device.

20. An apparatus according to any one of claims 15 to 19 wherein each sensor unit comprises a short range radio device for communication with at least one other sensor unit.

21. An apparatus according to any one of claims 15 to 20 wherein the non-contact coupling means is arranged to transmit a signal of between 5 kHz and 35 kHz.

22. An apparatus according to any one of claims 15 to 21 wherein the non-contact coupling means is arranged to transmit a signal of between 10 kHz and 32 kHz.

23. An apparatus according to any one of claims 15 to 22 wherein each sensor unit is powered by a power unit, the power unit comprising a battery and a solar panel.

24. A pipeline survey system comprising a pipeline survey apparatus according to

any one of claims 15 to 23 and a buried pipeline, which pipeline comprises a tubular member with a protective wrapping, wherein each sensor unit is spaced from each other sensor unit above and along the length of pipeline at a respective one of a plurality of spaced locations.

25. An system according to claim 24 wherein the plurality of sensor units are regularly spaced along the pipeline with a spacing of between 10 and 100 meters.

26. An system according to claim 24 or claim 25 wherein each sensor unit, which is provided at a respective location, is calibrated to take into account the distance between the sensor unit and the pipeline at that respective location.

27. An apparatus according to any one of claims 24 to 26 wherein each receiver has a sensor axis and each receiver is arranged with its sensor axis orthogonal to the axis of the length of pipeline that passes under the respective location of each receiver.

28. An apparatus according to any one of claims 24 to 27 wherein the pipeline comprises a cathodic protection system and each sensor unit is arranged to monitor the voltage of the cathodic protection system.